THE INFLUENCE OF THE FARADIC CURRENT IN THE TREATMENT OF VITREOUS OPACITIES, WITH CASES.

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THE presence of extensive vitreous opacities in the eye, while annoying to patients, is at the same time a preventive of an exact diagnosis as to the cause of the trouble, and a prognosis cannot be given till a view of the fundus of the eye is obtained.

While accepted plans of treatment do yield favorable results after a time, yet the sooner the media can be cleared up the better for both patient and physician. In hastening the process of removing vitreous opacities, I have found the Faradic current of value, combining medication with it.

My attention was first called to this in October, 1877, while treating a case of retinitis pigmentosa in a deaf mute, a male, aged fifteen, presenting at birth marks of a specific taint. Both eyes presented the lesion of retinitis pigmentosa to a marked degree. The right eye had a vitreous opacity to the nasal side, restricted in its movements, and the crystalline lens had a posterior polar cataract, slight in extent. I used the Faradic current for the condition of the retina, and with success, using at the same time, internally, iodide of potassium and mercury, and later strychnia. As the battery was used from time to time I observed the opacity in the vitreous of the right eye to decrease rapidly, far more so than where only medication had been resorted to in cases where vitreous opacity existed from various causes.

Since observing the improvement in this case, my note-book affords me the records of twelve cases of vitreous opacities, so serious in character as to prevent useful vision, and in which only medication and leeching has been resorted to, and while good results have been obtained, it took considerable time, the homes of the patients being so distant as to prevent frequent visits for the application of electricity.

During the past winter and spring several cases have afforded me

the opportunity to try the use of the Faradic current in addition to medical treatment, and the result has been more satisfactory as far as the time in treating the cases is concerned, and considerable diminution in the amount of medication.

The interrupted current has only been taken advantage of; the influence the constant current might have has not been attempted.

The cases which are here reported are those where the vitreous opacities were due to change in the retinal or choroidal circulation. That it would be valuable in any form of hyalitis I have no doubt, and would suggest the application of the Faradic current to those cases having vitreous opacities from changes in the eye due to myopia, and in those cases of vitreous opacities from presence of foreign bodies in the eye, so as to clear up the vitreous to enable a view of the fundus, so as to locate the foreign body, or see the damage done before enucleation, if that is required.

Carnus Henri, Thèse de Paris, 1874, reports the advantage of the constant current in opacities of the vitreous (Jahresbericht, 1875, published 1877, p. 193, eight cases treated).

Dor reports the good result of electricity in retinitis pigmentosa (Jahresbericht, 1872, published 1874, p. 380; also in Jahresbericht, 1877, published 1880, p. 198).

The improvement in the cases treated by electricity is not due to the stimulation of the nerve or retina, that of course being done, but to actual diminution of the opacities in the vitreous; as the improvement in vision remains constant and as it clears up, the ophthalmoscope can be used to see the improvement in reduction of their size and density, till a good view of the fundus is at last attained. The time required varies according to the size and density of the opacities. I have found one, two, or three weeks all that is necessary, application being made every other day, feeble at first, and gradually increased in length of time of application, and amount of electricity used, the applications being made from one hand and to the eyeball on the same side, or from the hand of the opposite side, or one pole can be applied to the nape of the neck, the other on the eyeball.

Four cases are reported recently under treatment.

CASE I.—J. F. D., male, aged twenty-nine; physician; Pennsylvania; seen February 17, 1882. In December, 1881, suffered from attack of diphtheria; confined to bed for one week; second day of attack the left eyeball became troublesome, sclerotic injected, intolerance of light and gradual loss of sight. Vision same now as at the worst; used atropia. Ophthalmoscope gives only slight reflex.

R. E., V.=$\frac{20}{XX}$ H+6o, field normal. L. E., V.=$\frac{1}{CC}$, field normal.

The vitreous was opaque and gave very dark reflex.

Potassii iodid. and hydrarg. bichlor. were ordered. Leeches to the temple. I advised also the application of a weak Faradic current to the eye every other day. Patient returned April 6, 1882; there had been a rapid improvement in vision.

L. E., V.=$\frac{15}{XL}$.

Floculi through vitreous; can see fundus so as to exclude any serious lesion of nerve or retina. July 29, 1882, writes nearly returned to normal vision; reads newspaper easily.

CASE II.—R. W., female, aged thirty-six; Pennsylvania. During June, 1881, compelled to give up work on account of general health and visual trouble; had suffered from rheumatism, sore throat; hair fallen out. Attack of Bell's palsy on right side; cornea affected, as seen by opacities now present. A few weeks later the left side was attacked with Bell's palsy, as the right side was getting better.

Vision had failed since the right eye was first attacked. Appropriate treatment was given by a capable physician.

No specific history made out. Severe pain in head at times, hearing was modified and taste also, sense of smell reduced.

R. E., V.=$\frac{15}{C}$; cannot continue near work or read. L. E., V.=$\frac{15}{C}$; cannot continue near work or read.

Ophthalmoscope reveals large opacities in vitreous, preventing view of fundus in each eye. Potassii iod. and hydrarg. bichlor. ordered.

April 6th, applied Faradic current. R. E., V.=$\frac{15}{L}$; after battery, $\frac{15}{XX}$. L. E., V.=$\frac{15}{LXX}$; after battery, $\frac{15}{XXX}$.

April 8th.—R. E., $\frac{15}{XX}$; after battery, $\frac{15}{XV}$. L. E., $\frac{15}{XXX}$; after battery, $\frac{15}{XX}$. Snellen 0.8 at 12."

April 11th.—R. E., $\frac{15}{XX}$; after battery, $\frac{15}{XV}$; three letters in line. L. E., $\frac{15}{L}$; after battery, $\frac{15}{XXX}$.

April 14th.—R. E., $\frac{15}{XV}$; after battery, $\frac{15}{XV}$; four letters in line. L. E., $\frac{15}{XXX}$; after battery, $\frac{15}{XX}$; two letters in line. Ordered strychnia.

April 17th.—R. E., $\frac{15}{XV}$; L. E., $\frac{15}{XX}$; after battery, $\frac{15}{XV}$; one letter.

April 20th.—Says sees much better for far and near all the time. R. E., $\frac{15}{XV}$; after battery, $\frac{15}{XV}$; four letters in line. L. E., $\frac{15}{XX}$; after battery, $\frac{15}{XV}$; three letters in line.

April 24th.—R. E., $\frac{15}{XV}$; four letters in line. L. E., $\frac{15}{XX}$; four letters; after battery, $\frac{15}{XV}$; one letter. Says she has been able to do work not done since she was first taken sick. Ophthalmoscope shows disk in each eye distinctly. a+6D shows thin opacities in vitreous.

May 5th.—Corrected in R. E., Ah+60 cyl. ax. 90°.

May 9th.—Corrected in L. E., Ah+48 cyl. ax. 90°.

June 15th.—R. E., V.=$\frac{15}{XV}$; very fine opacities exist in vitreous. L. E., V.=$\frac{15}{XX}$; slight opacities exist in vitreous.

July 6th.—Her vision is the same; hearing better; taste and smell as acute as ever.

CASE III.—W. F. C., male, aged thirty, New Jersey; Jefferson Medical College Hospital. Seen March 31, 1882. Suffered from sun-stroke three years ago, vision bad since. Has an eruption over face and about the body, which has been present almost continually since childhood. Denies specific taint. No glasses help him in seeing; is unable to read or write, as the words are lost as he views them.

Posterior polar cataract exists in each eye; also large, dense vitreous opacities are present in each eye; no view of the fundus of either eye obtainable with the ophthalmoscope. Some pain in eye last three months. Potassii iodid. given.

April 5th.—R. E., V.=$\frac{20}{LXX}$. L. E., V.=$\frac{20}{C}$ ($\frac{20}{LXX}$?).

April 7th.—R. E., V.=$\frac{15}{XV}$; after battery, $\frac{15}{XV}$; letter 0.5 at 12″. L. E., V.=$\frac{15}{L}$; after battery, $\frac{15}{XXX}$; letter 1.25 at 6″.

April 10th.—R. E., V.=$\frac{15}{XX}$; after battery, $\frac{15}{XV}$. L. E., V.=$\frac{15}{L}$; after battery, $\frac{15}{XL}$.

April 14th.—R. E., V.=$\frac{15}{XV}$; after battery, $\frac{15}{XV}$. L. E., V.=$\frac{15}{XL}$; after battery, $\frac{15}{XXX}$.

April 17th.—R. E., V.=$\frac{15}{XV}$. L. E., V.=$\frac{15}{XX}$; after battery, $\frac{15}{XV}$.

April 20th.—R. E., V.=$\frac{15}{XV}$. L. E., V.=$\frac{15}{XXX}$; after battery, $\frac{15}{XX}$.

April 24th.—R. E., V.=$\frac{15}{XV}$. L. E., V.=$\frac{15}{XX}$.

April 28th.—R. E., V.=$\frac{15}{XV}$, H+48. L. E., V.=$\frac{15}{XX}$, H+48.

Been able to observe change in choroid and retina since April 14th, in the left eye existing at the fovea.

Vitreous cleared so as to examine the fundus of each eye perfectly with the ophthalmoscope.

The changes in posterior portion of lens are annoying.

May 13th.—R. E.,+48, V.=$\frac{20}{XXX}$. L. E.,+48, V.=$\frac{20}{LXX}$.

Is able to read and write without discomfort, and is doing his work, that of a station-agent on the railroad.

CASE IV.—Mrs. W., aged forty-seven; Pennsylvania. Seen June 1, 1882.

R. E. enucleated June 5, 1882, having been lost by a blow some years ago; had no perception of light. L. E., V.=$\frac{3}{CC}$ with−3 worn now some time. Large vitreous opacities exist in the left eye, and changes in the fundus due to the myopia. Given potassii iodid.

June 10th.—Find—2⊃—6, cyl. ax., 70°; V.=$\frac{5}{LXX}$.
Applied the battery June 17th. V.=$\frac{15}{CC}$.
As she returned home, could not be used.
Seen August 16th. L. E., V.=$\frac{15}{CC}$ or $\frac{5}{XL}$.
Reads Snellen 1.25 at 12″.

Vitreous is much clearer, but changes due to posterior staphyloma prevent any further improvement. The left eye is much stronger since enucleation of the right eye.

REMARKS.

DR. JOHN GREEN, of St. Louis, referred to the case of a woman who had received specific treatment, on whom he used at first the weak Faradic current, and afterward a stronger one, for opacities of the vitreous. It was rather astonishing to note the improvement which took place from the beginning of the treatment.

THE PRESIDENT remarked that we all knew how difficult it was to cause contraction of the recti muscles of the eye by the Faradic current, and the question arose in his mind, how deeply the current entered during its employment in this manner.

REPORT OF A CASE OF GLIOMA IN A PATIENT TWENTY-ONE YEARS OF AGE.

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THE occurrence of glioma of the retina in a patient at so advanced an age, twenty-one years, makes it seem proper that this case should be recorded; therefore I present it for your consideration.

George S., of Binghamton, twenty-one years of age, a cigar-maker, small of stature, but always enjoying good health, presented himself at the Albany Hospital, October 2, 1878, stating that fourteen months before he had noticed a cloud coming over left eye, shutting off the outer and upper portion of the field of vision. In the course of ten months the entire field was covered, and the eye had lost all perception of light. He stated that for the last ten months he had had, at times, severe pain in the eye.

The tension was not increased. The ophthalmoscopic appearances were most interesting and remarkable.

There was complete detachment of the retina, which hung in cir-